

than a thousand, chiefly through the condensation of statistical matter, and confining this matter to the second volume of the report, by a skilful selection of topics of wide contemporary interest and of avowed timely value, by simplifying and giving a scientific interpretation of the mass of statistical detail, and above all, by the very noticeable care with which the editorial supervision has been conducted, the report represents the accomplishment of a leadership that appreciates both the opportunities and the obstacles of the work of the bureau.

Commissioner Brown's general introduction in the first volume is a briefly expressed, yet comprehensive, survey of contemporaneous educational conditions and progress, not only in the United States but throughout the principal countries of the world. This, together with the first chapter, in which are given succinct discussions of the more significant educational events of the year, covering the widest range of topics—international educational relations, international congresses, educational commissions, educational boards and associations, teachers' colleges, national university, industrial education, school hygiene, high-school fraternities, teachers' pension funds, being among the important ones—are well worth the reading by every one who would be alive to the educational movements of the day. The classified summaries of state legislation relating to public education for the years 1906–1907 and 1907–1908 contained in the second chapter are invaluable indices of the character and direction of our educational progress. This chapter also contains a statement of the several enactments of the first session of the Sixtieth Congress which have a direct or indirect bearing on education.

The remainder of the first volume of the report is given over to the usual presentation of the more important items of the educational affairs in Porto Rico, Philippines, South America, Great Britain and Ireland, France and central Europe. In these days of comparative study, these chapters will have great value, not only for the student, but for the publicist as well.

Decidedly the most important and most welcome reform of which the 1908 report bears evidence has to do with the statistics of education—the reef upon which many a good official report ship has been wrecked. This reform was begun in the preceding report under the direct supervision of Professor E. L. Thorndike, of the Teachers College, Columbia University. Not only in the present report have the tables of statistical items been rearranged and effectively condensed, but an excellent interpretative summary accompanied by appropriate frequency curves has been prepared by Professor G. D. Strayer, of the Teachers College, Columbia University. Commissioner Brown has effected a much-needed change in the matter of the statistical work of the bureau, and while yet our educational statistics are not as complete or as intelligible as they need to be, this last report exhibits the longest stride of progress yet made.

Were perchance awards of merit made for prodigality of publication and distribution, for ponderousness of bulk and content and for procrastination of presentation, such would, without doubt by common consent go to the generality of annual reports of governmental departments and bureaus. To this generality there is at least one notable exception, and all workers in the field of education are glad to have this exception come from the United States Bureau of Education.

EDWARD C. ELLIOTT

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THE MUSEUM EXHIBITIONS IN CONNECTION WITH THE HUDSON-FULTON CELEBRATION

IN an article published in the *North American Review* seven years ago,¹ the writer prophesied that, if the various museums and institutions in the city of New York could be induced to combine their efforts, a series of exhibitions might be presented which would constitute a most valuable addition to a Hudson-Fulton Celebration. About one year ago the trustees authorized the president of the Hudson-Fulton Commission to appoint com-

¹ "On Expositions and their Uses," *North American Review*, September, 1902.

mittees to take up museum work. He appointed the following committees:

Art and Historical Exhibits Committee.—Mr. J. Pierpont Morgan, general chairman.

Sub-committee in Charge of Scientific and Historical Exhibits.—Dr. George F. Kunz, chairman, 401 Fifth Avenue, New York; Mr. Samuel V. Hoffman, Mr. Archer M. Huntington, Professor Henry Fairfield Osborn, Mr. Philip T. Dodge.

Sub-committee in Charge of Art Exhibits.—Hon. Robt. W. de Forest, chairman, Metropolitan Museum of Art; Sir Caspar Purdon Clarke, Dr. Edward Robinson, Mr. George F. Hearn, Dr. George F. Kunz.

When the Art and Historical Committee was formed, the writer accepted the chairmanship of the sub-committee on Scientific and Historical Exhibits, and in cooperation with the members of this sub-committee and those of the sub-committee on Art Exhibits, was successful in realizing a most gratifying result. The ready response to requests for suitable exhibits has indicated the general interest aroused by the celebration.

The special exhibits noted in the following list have been carefully selected to emphasize the essential character of the occasion, so that they may give to the visiting thousands a more immediate and intimate knowledge of the conditions obtaining in Henry Hudson's time, and of the initiation and development of steam navigation, than could be secured by the study of the text-books and histories that treat of these matters. They will be glorious object lessons and will serve to arouse a feeling of civic pride in our citizens, and also to impress those who come from all parts of our land with the greatness and historic importance of our metropolis, and will powerfully stimulate the taste for art, science and history.

May this grand celebration, in all its various forms and phases, help to arouse, not only civic pride, but also civic virtue, so that the future progress of our city in material greatness and spiritual worth may testify to the permanent effects produced by it.

The following carefully prepared list of museums and institutions, with the time, place and duration of the free exhibitions, may be

of value, as a reference, to the scientists, and we herewith append them.

American Museum of Natural History, Seventy-seventh Street, from Columbus Avenue to Central Park West. Open daily, except Sundays, from 9 A.M. to 5 P.M.; Sundays from 1 to 5 P.M. Always free. Special exhibition during the Hudson-Fulton Celebration, from September 1 to December 1. Original objects showing the life and habits of the Indians of Manhattan Island and the Hudson River Valley. (Special illustrated guide for sale, price, ten cents.)

American Society of Mechanical Engineers, Engineering Building, 29 West Thirty-ninth Street. Robert Fulton exhibition, consisting of paintings, drawings, books, decorations and furniture, and working models of John Fitch's steamboat, the first boat operated and propelled by steam, Robert Fulton's *Clermont*, the first successful application of steam to navigation, and John Stevens's *Phœnix*, the first steamboat to sail on the ocean. The exhibition will be shown in the council room of the society, on the eleventh floor, and will be open from 9 A.M. until 5:30 P.M. during the entire period of the Hudson-Fulton Celebration, and from 9 A.M. until 5 P.M. daily until December 6.

Brooklyn Institute, Eastern Parkway. Open daily, except Sundays, from 9 A.M. to 6 P.M.; Sundays from 2 to 6 P.M.; Thursday evenings from 7:30 to 9:30 P.M. Free except on Mondays and Tuesdays, when admission fee is charged of twenty-five cents for adults and ten cents for children under six years of age. Collections illustrating various departments of archeology, mineralogy and ethnography. Special exhibition relating to past and present life of Indians on Long Island. Portrait of Robert Fulton painted by himself, the property of Col. Henry T. Chapman and loaned by him to the museum. Open September 1 to December 31. (Illustrated catalogue for sale.)

Children's Museum (Brooklyn Institute), Bedford Park, Brooklyn Avenue. Collection illustrative of the fauna of Long Island. Open free to the public from Monday to Saturday (inclusive) from 9 A.M. to 5:30 P.M., and on Sunday from 2 until 5:30 P.M.

City History Club of New York, 21 West Forty-fourth Street. Special exhibition of illustrations, photographs, maps and plans relating to the history of the city of New York, and all of the originals used in the City History Club Historical Guide Book of the City of New York.

College of the City of New York, St. Nicholas Avenue and 139th Street. Hudson-Fulton exhibit. During the Hudson-Fulton Celebration and for some weeks thereafter, the College of the City of New York will have on exhibition in its historical museum a collection of charts, views, manuscripts and relics representing old New York. Among the charts will be original prints of New Netherlands and New Amsterdam by Nicholas J. Vischer, about 1650; N. Visscher, 1690; Lotter's "New Joreck," 1720; contemporary plans and views of the revolutionary period showing the movements of Washington and Howe in this vicinity during the campaign of 1776; revolutionary battle relics; portraits, residences and letters of old New Yorkers; bronze busts of Washington, Lincoln and Fulton by Houdon and Volk; and other material suggested by the celebration.

Department of Parks, Boroughs of Brooklyn and Queens. Through the courtesy of Commissioner Michael J. Kennedy, the different species of trees have been labeled in Prospect Park, from the Plaza to the Willink entrance; in Bedford Park; in Highland Park, and in Tompkins Park. An additional small enameled sign has been hung on those labeled trees that were indigenous to the Hudson River Valley in 1609. The special label reads: "This species is a native of the Hudson River Valley."

Fraunces Tavern, 54 Pearl Street, near Broad Street. Historic revolutionary building. Built in 1719. Scene of Washington's farewell to his officers on December 4, 1783. Restored December 4, 1907, by the New York Society of the Sons of the Revolution. Open daily, except Sundays, from 9 A.M. to 6 P.M. Special exhibition of revolutionary relics by the New York State Society of the Sons of the Revolution, who are the owners of the historic building, September 15 to November 1.

Long Island Historical Society, corner of Pierrepont and Clinton Streets, Brooklyn, between Brooklyn Bridge and Borough Hall. Open daily, except Sundays, from 8:30 A.M. to 6 P.M. Reference library of 70,000 volumes; manuscripts, relics, etc. Autograph receipt of Robert Fulton and original manuscript volume of Danker's and Sluyter's "Journal of a Voyage to New York in 1679-80."

Metropolitan Museum of Art, Central Park East. Main entrance on Fifth Avenue at Eighty-second Street. Open daily, except Sundays, from 10 A.M. to 6 P.M.; until December 31, to 5 P.M.; Saturdays to 10 P.M.; Sundays from 1 to 6 P.M. On Mondays and Fridays an admission fee of

twenty-five cents is charged, except to members and copyists. Collections illustrating all departments of art and archeology. Special exhibition of a magnificent collection of over 130 of the works of seventeenth century Dutch masters, constituting the finest exhibition of this kind ever made. Products of colonial art: American paintings, furniture, pewter and silver of the seventeenth and eighteenth centuries, etc. (Two catalogues for sale, one of Dutch exhibit and one of colonial arts; price, ten cents each. Also finely illustrated edition de luxe.)

National Arts Club, Twentieth Street near Irving Place (Gramercy Park). This house was formerly the residence of Samuel J. Tilden, and is situated one block east of the birth-place of ex-President Roosevelt. Open daily from September 20 to about October 18, 1909, from 10 A.M. to 6 P.M. Special loan exhibition by the National Arts Club, in cooperation with the American Scenic and Historic Preservation Society. Three centuries of New York City: special exhibition of paintings, photographs, drawings and other interesting materials, illustrating the growth and progress of New York from the time of Henry Hudson to the present day.

New York Aquarium, in Battery Park. Under the management of the New York Zoological Society. Open daily, including Sundays, from 9 A.M. to 5 P.M. until October 15. (October 16 to April 14, from 10 A.M. to 4 P.M.) This building was erected in 1807 by the United States government as a fort and after the war of 1812 was called Castle Clinton; later, as Castle Garden, it was the scene of Jenny Lind's triumphs, and from 1855 to 1890 it was the portal of the New World for 7,690,606 immigrants. This is the largest aquarium in the world and contains a greater number of specimens and species than any other. All tanks containing fish indigenous to the Hudson River will be so marked.

New York Botanical Garden, Bronx Park. Museums open daily, including Sundays, from 10 A.M. to 5 P.M.; conservatories from 10 A.M. to 4 P.M. Grounds always open. In the grounds and conservatories exhibits of plants, shrubs, trees and natural woodland; in the museums, plant products utilized in the arts, sciences and industries. All trees growing on Manhattan Island and in the Hudson River Valley at the time of Hudson's arrival are marked with the letter "H." (Special illustrated catalogue for sale.)

New York Genealogical and Biographical Society, 226 West Fifty-eighth Street, between Broadway and Seventh Avenue. Open daily, ex-

cept Sundays, from 10 A.M. to 5 P.M., until November 1. Special exhibition of old deeds, manuscripts, books, portraits, etc., relating to the history of the United States up to and including the war of 1812. (Catalogue for sale.)

New York Historical Society, corner of Seventy-seventh Street and Central Park West. September 25 to October 30, open daily from 9 A.M. to 5 P.M. Robert Fulton exhibition of the New York Historical Society, in cooperation with the Colonial Dames of America. (Catalogue for sale.)

New York Public Library, Lenox Branch, Fifth Avenue and Seventy-second Street. Open daily, except Sundays, from 9 A.M. to 6 P.M. Special exhibition of prints, books, manuscripts, etc., relating to Henry Hudson, the Hudson River, Robert Fulton and steam navigation. (Special illustrated catalogue for sale; price, ten cents.)

New York Zoological Park, under the management of the New York Zoological Society, St. Nicholas Avenue (138th to 140th Streets), in Bronx Park. Open daily, including Sundays, from 9 A.M. until an hour before sunset (November 1 to May 1 from 10 A.M.). Free, except on Mondays and Thursdays, when an admission fee of twenty-five cents is charged. Exhibition of a splendid collection of animals, birds and reptiles. The fauna of Henry Hudson's time on Manhattan Island and in the Hudson River Valley will be indicated by the flag of the Hudson-Fulton Celebration. (Special illustrated catalogue for sale.)

Reformed Dutch Church. The Reformed Protestant Dutch Church of the City of New York will make an exhibit in the chapel of the church of St. Nicholas, Fifth Avenue and Forty-eighth Street, during the week of the celebration, 9 A.M. to 5 P.M. daily. (This church was organized A.D. 1628, and the exhibit will comprise articles connected with its long history.)

Van Cortlandt House Museum, in Van Cortlandt Park. This fine colonial mansion, built in 1748, with furniture of the period, is one of the oldest houses within the area of Greater New York; it is in the custody of the Colonial Dames of the State of New York. Open daily, 9 A.M. to 5 P.M. Special exhibition of mezzotint portraits of men prominent in political life prior to the revolution; Wedgwood's medallion portraits of illustrious personages; cartoons and caricatures of political events, etc. (Special illustrated catalogue on sale.)

Washington's Headquarters (The Jumel Mansion), Roger Morris Park, Edgecombe Road and One Hundred and Sixty-second Street. Built about 1760. Under the Department of Parks.

Exhibition by the ladies of the Washington Headquarters Association, Daughters of the American Revolution. Open free daily, including Sundays, from 9 A.M. to 5 P.M. Special features: collection of colonial furnishings, objects and pictures; also the Bolton collection of war relics of the revolution.

American Geographical Society, 15 West Eighty-first Street. Special exhibition of books and maps relating to Henry Hudson and Robert Fulton. Admission can be obtained by card. Apply to the librarian, 15 West Eighty-first Street. Open from September 25 to October 9, from 9 A.M. to 5 P.M.

GEORGE F. KUNZ,

*Chairman Historical and Scientific Exhibitions,
Hudson-Fulton Celebration Commission,
Tribune Building, New York*

SCIENTIFIC NOTES AND NEWS

IN connection with the celebration of the twentieth anniversary of Clark University, honorary degrees have been conferred as follows: *Doctor of Laws*—Percival Lowell, Boston; Ernest Fox Nichols, president of Dartmouth College; William Fogg Osgood, Harvard University; James Pierpont, Yale University; Hermon Carey Bumpus, director of the American Museum of Natural History; Leo Burgerstein, University of Vienna; Carl Barus, Brown University; Franz Boas, Columbia University; Sigmund Freud, University of Vienna; Herbert Spencer Jennings, Johns Hopkins University; Carl G. Jung, University of Zurich; Adolf Meyer, Johns Hopkins University; L. William Stern, University of Breslau; Edward Burr Van Vleck, University of Wisconsin; Robert Williams Wood, Johns Hopkins University. *Doctor of Physics*—Vito Volterra, University of Rome; Albert Abraham Michelson, University of Chicago; Ernest Rutherford, University of Manchester, England. *Doctor of Letters*—Edward Bradford Titchener, Cornell University. *Doctor of Biology*—Charles Otis Whitman, University of Chicago. *Doctor of Mathematics*—Eliakim Hastings Moore, University of Chicago.

DR. HENRY FAIRFIELD OSBORN, of New York, has been elected a corresponding member of the Senckenberg Natural History Society at Frankfurt.